

Penni Korb

Choosing To Work Off Farm

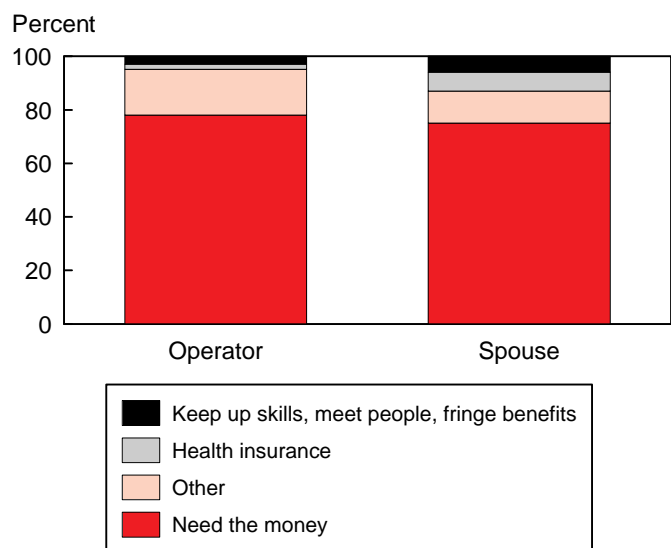
For most farm families, off-farm employment is an important source of additional income, and can also be used to mitigate the risks associated with farming activities and to provide essential additional funds. Total household income tends to be higher when off-farm wages can be counted on, most notably on farms with sales less than \$250,000. Off-farm employment is more prevalent on certain types of farms than others, and the age and the educational level of farm operators are factors that can affect the decision and ability to work off farm.

Data from the 1994 Agricultural Resource Management Study (formerly known as the Farm Costs and Returns Survey; see “Agricultural Resource Management Study”) indicate that, in nearly 62 percent of farm households, someone (an operator, spouse, or both) received off-farm wages or a salary, and in a quarter of all operator households, both operator and spouse worked off farm. Farm operators and their spouses work off farm for many different reasons (fig. 1). In 1994, 78 percent of operators and 75 percent of spouses cited financial need as their primary motive for working off farm. Much smaller percentages (from 5 to 10 percent) worked off farm for reasons of health insurance, fringe benefits, keeping up skills, or meeting people. Seventeen percent of operators and 12 percent of spouses who reported that they worked off farm took their jobs for reasons other than those mentioned as options in the questionnaire.

Of those operators and spouses who said that they worked off farm because they needed the money, only 7 percent of operators and 4 percent of spouses reported that they used their wages solely to offset their farm and ranch expenses (fig. 2). Over half of operators (55 percent) and a larger share of spouses (68 percent) responded that they needed the money for expenses unrelated to their farming enterprises. Smaller shares, 36 percent of operators and 27 percent of spouses, used their wages to pay for both farming and other expenses.

Figure 1

Reasons given for holding off-farm jobs, 1994
Operators and spouses work off farm primarily for money rather than health insurance, keeping up skills, or fringe benefits



Note: Responses to the question: What was the main reason you, the operator, or your spouse had an off-farm job in 1994?

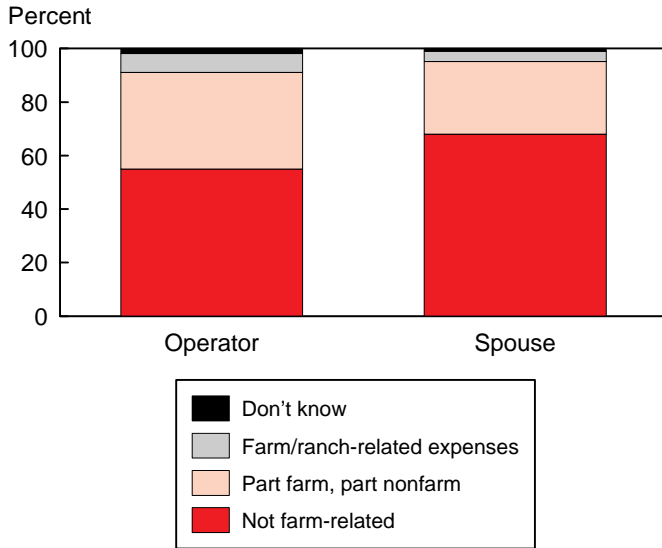
Source: USDA-ERS, Agricultural Resource Management Study, 1994, Version 1.

Penni Korb is an economist in the Farm Structure and Performance Branch, Resource Economics Division, ERS.

Figure 2

How farm families used the money from off-farm jobs, 1994

Most operators and spouses used off-farm earnings for expenses unrelated to farming



Note: Responses to the question: Did you, the operator, or your spouse need the money mainly for farm/ranch purposes, or was it needed for other things?

Source: USDA-ERS, Agricultural Resource Management Study, 1994, Version 1.

A regional glance at off-farm work reveals that the South, with almost 41 percent of U.S. farms, had the highest percentage of operator-only off-farm workers (44.8 percent) and a below average share of spouses that worked off farm (30.3 percent). The West, with 12.6 percent of farm households, accounted for 14.4 percent of the farms where no one worked off farm and only 9.4 percent of farms where both the operator and spouse had off-farm jobs. The Midwest, on the other hand, with over 40 percent of the farms, had the largest share of households where only the spouse worked off farm (50 percent). The Northeast had the smallest percentage of farm households (6.2 percent) and low percentages of off-farm work.

Younger, Better-Educated Farmers and Spouses Most Likely To Work Off Farm

Operator's age and level of educational attainment are both factors that are associated with off-farm employment. The average age for all farm operators was 54 years, while the average age if the operator alone worked off farm was 49 years. If only the spouse worked off-farm, the average operator's age was 51 (table 1). The youngest group (average operator age 46 years) was households where both operator and spouse held off-farm jobs, while the oldest (average age 62) ran farms where neither operator nor spouse had off-farm work. Some of the operators and spouses in this group may have been retired.

Almost 43 percent of operators and spouses who worked off farm had a high school diploma, while an additional 43 percent had some college and beyond (fig. 3). Only 13.6 percent of off-farm work was done by operators and spouses with less than a high school education, while this group constituted almost 30 percent of operator households where the farm was the household's sole source of income. An operator, spouse, or both are more likely to have off-farm income if they have at least a high school education, possibly due to their higher marketability.

Farmers With Off-Farm Jobs Run Smaller, Less Time-Intensive Operations and Rely Less on Government Payments

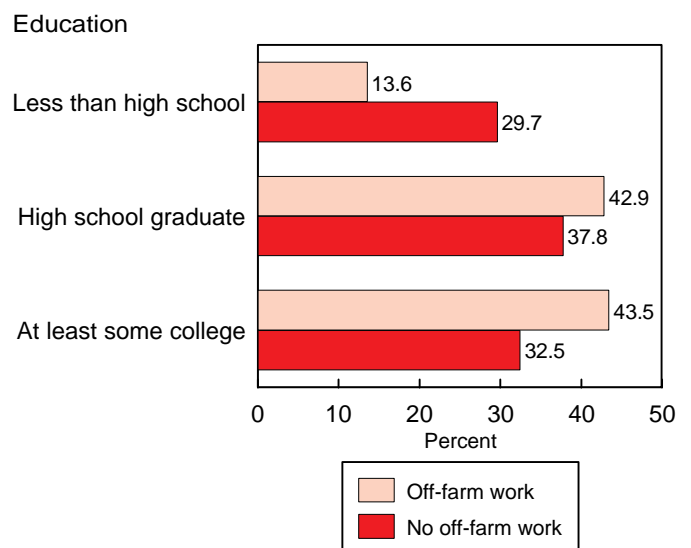
Operators of smaller farms that generate less than \$50,000 in sales are far more likely to work off farm than their larger counterparts and probably have another occupation besides farming. Beef, hog, and sheep farmers are the most likely to have off-farm work, accounting for 48 percent of the instances when both operator and spouse work off farm (table 1). Dairy farmers worked off farm the least (2.2 percent when both work off farm). The intense time commitment dairy farming requires makes it difficult for an operator to hold an off-farm job. Raising beef, hogs, and sheep is less time-consuming.

Farm households with off-farm income tend to have higher incomes than those in which all income is derived from the farm. Households with no off-farm income had aver-

Figure 3

Distribution of farm operator and spouse off-farm employment by education, 1994

Most off-farm work was done by operators and spouses who had at least a high school diploma



Note: Based on responses to the question: Did you or your spouse work off this operation for wages or a salary in 1994?

Source: USDA-ERS, Agricultural Resource Management Study, 1994 Version 1.

Table 1

Characteristics of farm operator households by off-farm work, 1994

In nearly 62 percent of farm households, someone (the operator, the spouse, or both) worked off farm, resulting in household incomes that exceeded the average for all farm households

| Item | Off-farm work | | | | All households |
|-------------------------------------------------------|---------------|-------------|-----------|---------------|----------------|
| | Operator only | Spouse only | Both work | Neither works | |
| Farm operator households (number) | 438,987 | 279,115 | 516,170 | 761,753 | 1,996,026 |
| Farm operator households (percent) | 22.0 | 14.0 | 25.9 | 38.2 | 100.0 |
| Operator age (average) | 49 | 51 | 46 | 62 | 54 |
| Operator age (percent): | | | | | |
| Younger than 35 years | 10.9 | 8.2 | 12.4 | 5.6 | 8.9 |
| 35 - 44 years | 21.6 | 25.3 | 31.3 | 9.7 | 20.1 |
| 45 - 54 years | 32.7 | 26.1 | 33.5 | 13.9 | 24.8 |
| 55 - 64 years | 22.5 | 25.7 | 20.3 | 19.9 | 21.4 |
| 65 years or older | 12.4 | 14.7 | na | 50.9 | 24.9 |
| Operator education (percent): | | | | | |
| Less than high school | 14.7 | 13.9 | 12.6 | 29.7 | 19.8 |
| High school | 44.5 | 43.5 | 41.1 | 37.8 | 40.9 |
| Some college | 24.3 | 24.5 | 24.0 | 17.1 | 21.5 |
| College | 16.5 | 18.1 | 22.3 | 15.4 | 17.8 |
| Operator major occupation: | | | | | |
| Farming | 18.8 | 84.3 | 16.2 | 65.3 | 45.0 |
| Other than farming | 81.2 | 15.7 | 83.8 | 34.7 | 55.0 |
| Household size (average) | 3.0 | 3.2 | 3.4 | 2.5 | 2.9 |
| Household size (percent): | | | | | |
| 1 person | 13.9 | d | d | 15.2 | 9.1 |
| 2 persons | 34.1 | 45.2 | 34.9 | 55.0 | 43.8 |
| 3 persons | 17.1 | 17.9 | 22.5 | 13.8 | 17.4 |
| 4 persons | 20.1 | 18.4 | 21.2 | 7.8 | 15.5 |
| 5 persons or more | 14.8 | d | d | 8.1 | 14.3 |
| Farm income to household (average dollars) | -1,480# | 13,958 | -3,007 | 9,742 | 4,567 |
| Farm income to household (percent): | | | | | |
| Negative | 66.2 | 44.3 | 68.0 | 48.9 | 57.0 |
| \$0 - \$9,999 | 22.7 | 16.8 | 20.8 | 25.7 | 22.5 |
| \$10,000 - \$24,999 | 5.1 | 15.9 | 7.7 | 10.7 | 9.4 |
| \$25,000 - \$49,999 | 3.5 | 10.2 | 2.5 | 7.3 | 5.6 |
| \$50,000 and more | 2.5 | 12.9 | 1.0 | 7.4 | 5.4 |
| Total off-farm income (average dollars) | 47,852 | 30,472 | 55,106 | 23,624 | 38,051 |
| Total off-farm income (percent): | | | | | |
| Less than \$10,000 | 12.5 | 23.9 | 4.4* | 43.4 | 23.8 |
| \$10,000 - \$24,999 | 20.3 | 36.6 | 13.3 | 29.0 | 24.1 |
| \$25,000 - \$49,999 | 42.7 | 27.9 | 42.3 | 16.5 | 30.5 |
| \$50,000 and more | 24.5 | 11.6 | 40.0 | 11.1 | 21.6 |
| Household income (average dollars) | 46,372 | 44,430 | 52,099 | 33,366 | 42,618 |
| Household income (percent): | | | | | |
| Negative | 5.3 | 12.7 | 3.0* | 13.1 | 8.7 |
| \$0 - \$9,999 | 9.0 | 9.3 | 4.5* | 20.5 | 12.3 |
| \$10,000 - \$24,999 | 24.6 | 20.8 | 15.6 | 26.2 | 22.3 |
| \$25,000 - \$49,999 | 35.9 | 30.0 | 38.6 | 21.2 | 30.2 |
| \$50,000 and more | 25.3 | 27.1 | 38.3 | 19.0 | 26.5 |
| Direct government payments (average dollars) | 1,796 | 6,048 | 1,886 | 4,368 | 3,395 |
| Direct government payments (percent) | 11.6 | 24.9 | 14.4 | 49.1 | 100.0 |
| Households with income below poverty level (percent): | | | | | |
| Based on farm income | 89.6 | 65.0 | 90.5 | 74.4 | 80.6 |
| Based on earned off-farm income | 22.8 | 48.2 | 7.5 | 87.6 | 47.1 |
| Based on total off-farm income | 15.5 | 29.9 | 6.3 | 40.5 | 24.7 |
| Based on total household income | 19.2 | 25.6 | 10.5 | 33.0 | 23.1 |
| Dependence on farm income (percent): | | | | | |
| Absolute value of farm income exceeds off farm | 13.0 | 43.4 | 6.7 | 38.4 | 25.3 |
| Actual value of farm income exceeds off farm | 7.7 | 30.6 | 3.6 | 25.3 | 16.6 |
| Farm operator households (number) | 438,987 | 279,115 | 516,170 | 761,753 | 1,996,026 |
| Time operator worked on farm (number): | | | | | |
| Hours per month | 82 | 197 | 84 | 137 | 120 |
| Hours per year | 1,028 | 2,462 | 1,046 | 1,709 | 1,497 |
| Operator by hours worked on the farm (percent): | | | | | |
| Less than 500 hours | 28.1 | na | 38.3 | 30.7 | 100.0 |
| 500 - 999 hours | 29.1 | na | 30.3 | 34.2 | 100.0 |
| 1,000 - 1,999 hours | 25.9 | 8.5 | 31.4 | 34.2 | 100.0 |
| 2,000 hours or more | 7.7 | 31.4 | 9.5 | 51.4 | 100.0 |

See notes at end of table.

—continued

Table 1

Characteristics of farm operator households by off-farm work, 1994–Continued

In nearly 62 percent of farm households, someone (the operator, the spouse, or both) worked off farm, resulting in household incomes that exceeded the average for all farm households

| Item | Off-farm work | | | | All households |
|------------------------------------------------|---------------|-------------|-----------|---------------|----------------|
| | Operator only | Spouse only | Both work | Neither works | |
| Share of total hours worked on farm (percent): | | | | | |
| Operator | 62.3 | 74.6 | 67.8 | 69.1 | 68.9 |
| Spouse | 21.9 | 12.6 | 15.2 | 15.7 | 16.0 |
| All other workers | 15.8 | 12.8 | 17.0 | 15.2 | 15.1 |
| Commodity specialty (percent): | | | | | |
| Cash grains | 19.8 | 26.2 | 18.9 | 17.2 | 19.5 |
| Other crops | 23.6 | 18.6 | 22.5 | 26.8 | 23.9 |
| Beef, hog, sheep | 46.9 | 35.4 | 48.4 | 39.9 | 43.0 |
| Other livestock | 6.3 | 6.3* | 8.0* | 6.4 | 6.8 |
| Dairy | 3.3* | 13.5 | 2.2* | 9.7 | 6.9 |
| Legal form of farm organization (percent): | | | | | |
| Sole proprietorship | 92.9 | 88.2 | 93.7 | 90.7 | 91.6 |
| Legal partnership | 3.9* | 7.5 | 4.6 | 6.1 | 5.4 |
| Family corporation | 3.3* | 4.2 | 1.7* | 3.2 | 3.0 |
| Farm net worth (average dollars) | 232,769 | 407,919 | 211,492 | 478,183 | 345,418 |
| Farm net worth (percent): | | | | | |
| Negative | na | na | na | .8# | .7* |
| 0 - \$49,999 | 15.1 | na | 15.2 | 7.5 | 10.6 |
| \$50,000 - \$249,999 | 56.3 | 42.4 | 61.3 | 42.5 | 50.4 |
| \$250,000 - \$499,999 | 17.5 | 29.3 | 14.9 | 25.6 | 21.6 |
| \$500,000 or more | 9.8 | 24.9 | 8.1 | 23.6 | 16.7 |
| Farm financial ratios (percent): | | | | | |
| Rate of return on assets | .2* | .2 | .1 | .1 | .1 |
| Rate of return on equity | 7.6 | 4.6 | 6.3 | 8.5 | 7.0 |
| Favorable | 40.3 | 56.3 | 34.6 | 56.5 | 47.3 |
| Marginal income | 51.2 | 31.2 | 55.1 | 37.6 | 44.2 |
| Marginal solvency | 1.7* | 9.4 | 3.9 | 4.6 | 4.5 |
| Vulnerable | 6.7* | 3.2 | 6.4 | 1.3* | 4.1 |
| Farm tenancy (percent): | | | | | |
| Full ownership | 57.7 | 33.9 | 49.7 | 56.8 | 52.0 |
| Part tenant | 32.3 | 52.1 | 40.9 | 35.4 | 38.5 |
| Full tenant | 10.0 | 14.0 | 9.4 | 7.8 | 9.5 |
| U.S. region (percent): | | | | | |
| Northeast | 5.6 | 7.3 | 5.8 | 6.5 | 6.2 |
| Midwest | 36.0 | 50.0 | 43.3 | 37.2 | 40.3 |
| South | 44.8 | 30.3 | 41.6 | 41.8 | 40.8 |
| West | 13.6 | 12.4 | 9.4 | 14.4 | 12.6 |
| Farm sales (percent): | | | | | |
| Less than \$50,000 | 87.0 | 41.7 | 85.4 | 68.1 | 73.0 |
| \$50,000 - \$249,999 | 11.1 | 43.6 | 13.3 | 24.3 | 21.3 |
| \$250,000 - \$499,999 | 1.1 | 10.0 | .7 | 4.4 | 3.5 |
| \$500,000 or more | .9* | 4.7 | .6 | 3.2 | 2.2 |
| Total value of production (percent) | 10.3 | 27.6 | 12.1 | 50.0 | 100.0 |

* = The relative standard error of the estimate exceeds 25 percent, but is no more than 50 percent.

= The relative standard error of the estimate exceeds 50 percent, but is no more than 75 percent.

d = Data insufficient for disclosure.

na = Not applicable.

Source: USDA, Economic Research Service, Agricultural Resource Management Study, 1994, Version 1.

age incomes of \$33,366 for 1994, while off-farm wages boosted average household income to \$52,099 when both operator and spouse held off-farm jobs. Similarly, off-farm employment reduced the share of farm households having incomes below the poverty level from an average of 80.6 percent, based solely on farm income, to 23.1 percent when off-farm income is included. The incidence of poverty, based on total household income, is lowest for operators and spouses who both work off farm (10.5 percent). Although off-farm income contributes substantially to total household income, farm income decreases as the operator

has less time to devote to the farm operation. Above-average farm-generated income is recorded when the operator remains on the farm and is maximized when only the spouse works off farm, averaging \$13,958 of farm household income compared with \$4,567 for all farms.

Farm operations in which the operator held an off-farm job relied less on direct government payments (11.6 percent of government payments when the operator alone worked off farm and 14.4 percent when the operator and spouse worked off farm) than operations in which only the spouse or no one held an off-farm job. Almost 25 per-

Agricultural Resource Management Study

The Agricultural Resource Management Study (ARMS), formerly known as the Farm Costs and Returns Survey (FCRS), is a probability-based survey in which each respondent represents a number of farms of similar size and type. Thus, sample data can be expanded using appropriate weights to represent all farms in the contiguous United States. The ARMS is conducted annually by the Economic Research Service and the National Agricultural Statistics Service in all States, except Alaska and Hawaii.

Estimates based on an expanded sample differ from what would have occurred if a complete enumeration had been taken. However, the relative standard error (RSE), a measure of sampling variability, is available from survey results. The RSE is the standard error of the estimate expressed as a percentage of the estimate. Any estimate with an RSE greater than 25 percent has been identified.

The standard error of the estimate can also be used to evaluate the statistical differences between ARMS-based estimates. This article emphasizes differences between ARMS-based estimates only when estimates were significantly different at the 95-percent level or higher.

In the 1994 survey, both the farm operator and spouse were asked questions concerning the motives for and the disposition of off-farm wages and salaries. Specifically, the questions were as follows:

What was the main reason you (the operator) had an off-farm/ranch job? [Choose one response.]

- (1) Keep up, use skills
- (2) Meet people
- (3) Need the money
- (4) Health insurance
- (5) Fringe benefits
- (6) Other

If the respondent's answer was 3, then the following question was asked:

Did you (the operator) need the money mainly for farm/ranch expenses, or did you need it for other things? [Choose one response.]

- (1) Farm/ranch-related expenses
- (2) Other things
- (3) Both equally
- (4) Don't know

For the purposes of this article, off-farm work means working off the farm operation for wages or a salary or as a proprietor of an off-farm business.

cent of government payments were directed to farms where only the spouse worked off farm. Slightly less than half of government payments went to farms where no one held an off-farm job. With government payments declining, off-farm employment opportunities may become increasingly important.

From a production standpoint, half of the total value of production was generated on farms with no off-farm employment. Farm households in which both operator and spouse worked off farm contributed only 12 percent to the total value of production. The remaining 38 percent of the total value of production for all farms in 1994 was generated by operations where either the operator or spouse worked off farm.

While households with off-farm employment have a higher average household income, those with no off-farm work have higher average net worth. Farms on which neither operator nor spouse worked off farm had an average net worth of \$478,183 in 1994, compared with \$211,492 on farms where both spouse and operator worked off farm. This is a result of the high capital commitment required to sustain a full-time farming operation.

Conclusion

Off-farm wages and salaries are important additions to income for many farm households, and sometimes are important to the farm operation itself if used to support farm expenses. Increasing the likelihood of a successful farming operation can be accomplished in a number of different ways. Choosing to work off farm is one of the ways that farm households can counteract the variations in farm income.

For Further Reading. . .

Mary C. Ahearn, Janet E. Perry, and Hisham H. El-Osta, *The Economic Well-Being of Farm Operator Households, 1988-1990*, AER-666, USDA-ERS, Jan. 1993.

Thomas A. Carlin and Linda Ghelfi, "Off-Farm Employment and the Farm Sector," in *Structure Issues of American Agriculture*, AER-438, USDA-ERS, Nov. 1979, pp. 270-282.

Brian W. Gould and William E. Saupe, "Off-Farm Labor Market Entry and Exit," *American Journal of Agricultural Economics*, Vol. 71, No. 1, Nov. 1989, pp. 960-69.

Wallace E. Huffman, "Farm and Off-Farm Work Decisions: The Role of Human Capital," *Review of Economics and Statistics*, Vol. LXII, No. 1, Feb. 1980, pp. 14-23.

Janet E. Perry and Mary Ahearn, "Farm Women Blend Farm and Off-Farm Work," *Rural Development Perspectives*, Vol. 9, No. 3, June 1994, pp. 24-31.

Janet Perry, Norah Keating, Anne Effland, and Francis Shaver, "Gender and Generation on Family Farms," *Canadian Journal of Agricultural Economics*, 1995, Special Issue, pp. 115-30.

ERRATA

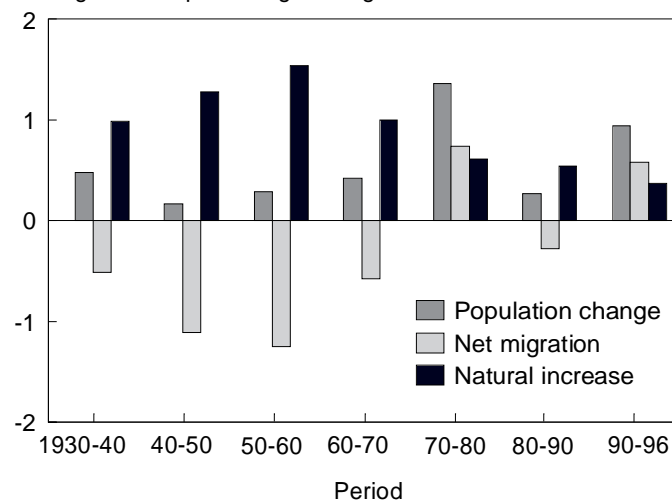
In the previous issue of *RDP* (vol.13, no. 3), figure 2 on page 4 should appear as follows:

Figure 2

Nonmetro demographic change, 1930-96

The 1970's and 1990's are exceptions to the long-term trend of net outmigration from nonmetro areas

Average annual percentage change



Source: Calculated by authors from Census Bureau and other data.